



FACT SHEET

Missouri Department of Natural Resources



Herculaneum Lead Smelter Site Herculaneum, Missouri

December 2000

INTRODUCTION

The U. S. Environmental Protection Agency (EPA) Region 7, Missouri Department of Natural Resources (MDNR), and The Doe Run Resources Corporation have entered into an agreement, known as an Administrative Order on Consent (AOC). The AOC addresses health and environmental issues related to Doe Run's lead smelter operation, located at 881 Main Street, Herculaneum, Missouri.

The purpose of this fact sheet is to provide information on the actions required by the agreement and to announce a comment period on the agreement.

BACKGROUND

The 52-acre Doe Run lead smelter facility in Herculaneum has operated for more than 100 years and is the largest smelter of its kind in the United States. The facility consists of two main areas, the smelter plant and a 40-50 feet high slag pile that covers 24 acres.

The facility is bordered on the east by the Mississippi River, on the west and north-northwest by residential areas, and on the south-southwest by the slag pile. A large part of the slag pile is located in the floodplain wetlands of Joachim Creek and the Mississippi River.

COMMENT PERIOD

The agreement with Doe Run is not final until the public has a chance to comment on it. You are invited to send comments on the agreement to EPA at the address below. Please make your comments by January 12, 2001. Comments may be sent to:

Diane Huffman
Environmental Protection Agency
Office of External Programs
901 N. 5th Street
Kansas City, Kansas 66101
huffman.diane@epa.gov

Documents with information about the site, including the agreement, are available for your review at:

Herculaneum Public Library
1 Parkwood Court
Herculaneum, Missouri

These documents are also available at the EPA Region 7 office in Kansas City, Kansas.

Samples of soil, ground water, surface water, sediment, and air have been taken in and around the facility. Elevated levels of lead, arsenic, cadmium, and other metals associated with the smelting operation have been found. Samples have also been taken of mammals, birds, and fish in the area and a blood lead study of children in Herculaneum conducted. The results of these studies indicate that conditions present at the facility may present an imminent and substantial endangerment to public health, welfare, or the environment.

THE AGREEMENT

The AOC outlines actions to be taken to address human health and environmental issues related to air, soil, ground water, surface water and wetlands. EPA and MDNR will approve the work that is to be done and Doe Run will conduct the work. Doe Run will reimburse EPA and MDNR for costs associated with their work on this site.

Doe Run has been voluntarily conducting some of the work described in the AOC. The AOC expands the scope of the work and expedites the schedule for completing the work with enforceable deadlines.

The AOC is proposed at this time and will not be finalized until the public has had an opportunity to comment on it.

REQUIRED ACTIONS

Blood Lead Levels

The AOC requires Doe Run to develop a Community Blood Lead Plan to conduct outreach activities that educate the citizens of Herculaneum on the health effects of lead exposure and provide blood lead screening for children. Doe Run and the Jefferson County Health Department have documented elevated blood lead levels in children that live near the smelter.

Residential Yard Cleanup

The AOC requires that Doe Run conduct sampling to determine the extent of soil contamination in the vicinity of the smelter. Soil samples will be taken in yards of homes and day-care facilities, areas of schoolyards frequented by children, parks, and all other high-use areas affected by the smelter operation. Sampling will begin in areas near the facility and extend outward in phases. Soil that exceeds the cleanup level for lead will be replaced to a depth of one foot.

Soil samples, taken in residential yards near the smelter, have been found to contain elevated levels of lead. Some children with elevated blood lead levels have had elevated levels of lead in the soil in their yards. Throughout the 1990, Doe Run voluntarily replaced soil in yards near the smelter.

Air Emissions

The agreement calls for Doe Run to implement additional control measures to reduce air pollutants. These measures include enclosing several areas of the facility and adding equipment to capture lead emissions and prevent them from being released into the environment. The

Herculaneum area does not currently meet the air quality standards for lead required by the Clean Air Act. Residents of Herculaneum may be exposed to lead by inhaling lead particles in the air. Studies show a correlation between air lead levels and blood lead levels.

Slag Pile

The AOC requires Doe Run to study and implement short- and long-term measures to control runoff of pollutants from its 24-acre slag pile. Doe Run will ensure that the slag is managed in a way that prevents releases of slag to the environment.

A substantial part of the slag pile is located in the floodplain wetlands of Joachim Creek and Mississippi River. There is potential for the ground water beneath the slag pile to become contaminated and discharged to these waters. Elevated levels of lead and cadmium have been found in samples taken from ground water monitoring wells near the slag pile. There are also private drinking water wells in the area which could potentially become contaminated.

HEALTH EFFECTS

Exposure to lead may occur by breathing dust containing lead or by ingestion. Exposure to lead may result in toxic effects to the brain and central nervous system. Exposure to lead can affect adults, but children less than six years old and unborn children whose mothers are exposed to lead are especially vulnerable to the effects of lead poisoning. Children exposed to lead may also develop permanent learning disabilities.

NEXT STEPS

EPA and MDNR will review the comments received on the AOC. A summary of the comments and a response will be prepared and made available to the public. The AOC will become effective unless information is provided during the comment period that indicates the order is inappropriate, improper, or inadequate. In such an event, EPA and MDNR may withdraw their consent to the AOC.

ADDITIONAL INFORMATION

The AOC and other documents related to the site, also known as the Administrative Record, are available for public review at the Herculaneum Public Library, 1 Packwood Court, Herculaneum, Missouri, and at the EPA Region 7 office in Kansas City. If you have questions about this fact sheet or need additional information regarding this site, please contact:

Diane Huffman
Community Involvement Coordinator
U.S. EPA Region 7
Office of External Programs
901 North 5th Street
Kansas City, Kansas 66101
(913) 551-7003
Toll-free at 1-800-223-0425
E-mail: huffman.diane@epa.gov

Karen Cass
Missouri Department of Natural Resources
Hazardous Waste Program
P.O. Box 176
Jefferson City, Missouri 65102
(573) 751-6669
Toll-free: 1-800-361-4827